



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0829; Project Identifier MCAI-2021-00189-R;

Amendment 39-21829; AD 2021-24-08]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-04-21, which applies to certain Airbus Helicopters Model EC120B helicopters. AD 2021-04-21 required an inspection of the attachment bolts of the main rotor (MR) hub scissors assembly for discrepancies and repair if necessary; part marking of the attachment bolts of the MR hub scissors assembly; and repetitive inspections of the part marking of the attachment bolts, and repair if necessary. This AD continues to require the actions in AD 2021-04-21; and also requires part marking of the washer, scissor branch, and mast ring of the corresponding nut side, and repetitive inspections of the additional part markings and repair if necessary; as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. This AD was prompted by a report of broken and bent attachment bolts of the MR hub scissors assembly and a determination that additional part markings of the washer, scissor branch, and mast ring of the corresponding nut side, and repetitive inspections of those part markings, are necessary to detect any rotation. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; Internet: www.easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0829.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0829; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0046, dated February 12, 2021 (EASA AD 2021-0046) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Airbus Helicopters Model EC120B helicopters. Although EASA AD 2021-0046 applies to all Model EC120B helicopters, this AD applies to helicopters with an affected part installed instead.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-04-21, Amendment 39-21443 (86 FR 17278, April 2, 2021) (AD 2021-04-21). AD 2021-04-21 applied to certain Airbus Helicopters Model EC120B helicopters. The NPRM published in the *Federal Register* on September 23, 2021 (86 FR 52859). The NPRM was prompted by a report of broken and bent attachment bolts of the MR hub scissors assembly and a determination that additional part markings of the washer, scissor branch, and mast ring of the corresponding nut side, and repetitive inspections of those part markings, are necessary to detect any rotation. The NPRM proposed to continue to require the actions in AD 2021-04-21, as specified in an EASA AD. The NPRM also proposed to require part marking of the washer, scissor branch, and mast ring of the corresponding nut side, and repetitive inspections of the additional part markings and repair if necessary, as specified in an EASA AD.

The FAA is issuing this AD to address broken and bent attachment bolts of the MR hub scissors assembly, which could lead to detachment of a MR hub scissors attachment bolt, possibly resulting in complete loss of control of the helicopter. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes.

The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0046 specifies procedures for an inspection of the attachment bolts of the MR hub scissors assembly for discrepancies (discrepancies include corrosion, fretting, wear, cracking, bolt play, and bolt tightening torque) and repair if necessary; part marking of the washer, scissor branch, and mast ring of the attachment bolts and corresponding nut side of the MR hub scissors assembly; and repetitive inspections, after part marking, for discrepancies, and repair if necessary. The inspections of the attachment bolts of the MR hub assembly include checking the play and torque of the scissors attachment bolts and making sure that there are no hard spots in the scissors link hinge.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 89 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection for discrepancies (retained actions from AD 2021-04-21)	4 work-hours X \$85 per hour = \$340	\$0	\$340	\$30,260
Part Marking (retained actions from AD 2021-04-21)	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$7,565
Repetitive Inspection of Markings (retained actions from AD 2021-04-21)	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$7,565 per inspection cycle
Additional Part Marking (new action)	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$7,565
Repetitive Inspection (new action)	1 work-hours X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$7,565 per inspection cycle

The FAA estimates that it would take about 1 hour per product to comply with the reporting requirement in this AD. The average labor rate is \$85 per hour. Based on these figures, the FAA estimates the cost of reporting on U.S. operators to be \$7,565, or \$85 per product.

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair of the attachment bolts	4 work-hours X \$85 per hour = \$340	\$40	\$380

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Pkwy., Fort Worth, TX 76177-1524.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2021-04-21, Amendment 39-21443 (86 FR 17278, April 2, 2021); and

- b. Adding the following new AD:

2021-24-08 Airbus Helicopters: Amendment 39-21829; Docket No. FAA-2021-0829; Project Identifier MCAI-2021-00189-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-04-21, Amendment 39-21443 (86 FR 17278, April 2, 2021) (AD 2021-04-21).

(c) Applicability

This AD applies to Airbus Helicopters Model EC120B helicopters, certificated in any category, having an affected part as defined in European Union Aviation Safety Agency (EASA) AD 2021-0046, dated February 12, 2021 (EASA AD 2021-0046).

(d) Subject

Joint Aircraft System Component (JASC) Code 6200, Main Rotor System.

(e) Unsafe Condition

This AD was prompted by a report of broken and bent attachment bolts of the main rotor (MR) hub scissors assembly and a determination that additional part markings of the washer, scissor branch, and mast ring of the corresponding nut side, and repetitive inspections of those part markings, are necessary to detect any rotation. The FAA is issuing this AD to address broken and bent attachment bolts of the MR hub scissors assembly, which could lead to detachment of a MR hub scissors attachment bolt, possibly resulting in complete loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021-0046.

(h) Exceptions to EASA AD 2021-0046

(1) Where EASA AD 2021-0046 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0046 refers to September 05, 2018 (the effective date of EASA AD 2018-0186), this AD requires using May 7, 2021 (the effective date of AD 2021-04-21).

(3) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0046.

(4) Where the service information referenced in EASA AD 2021-0046 specifies to discard certain parts, this AD requires removing those parts from service.

(5) Where EASA AD 2021-0046 refers to flight hours (FH), this AD requires using hours time-in-service.

(6) Paragraphs (3) and (4) of EASA AD 2021-0046 refer to “discrepancies.” For this AD, discrepancies include corrosion, fretting, wear, cracking, bolt play, twist, shearing, rupture, and bolt tightening torque.

(7) Where EASA AD 2021-0046 specifies to contact the manufacturer for repair instructions, this AD requires the repair to be done in accordance with a method approved by the Manager, General Aviation and Rotorcraft Section, International Validation Branch, FAA; or EASA; or Airbus Helicopter’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(8) Paragraph (5) of EASA AD 2021-0046 specifies to report inspection results to Airbus Helicopters within a certain compliance time. For this AD, report inspection results at the applicable time specified in paragraph (h)(8)(i) or (ii) of this AD.

(i) If the inspection was done on or after May 7, 2021 (the effective date of AD 2021-04-21): Submit the report within 30 days after the inspection.

(ii) If the inspection was done before May 7, 2021 (the effective date of AD 2021-04-21): Submit the report within 30 days after May 7, 2021.

(i) Special Flight Permit

Special flight permits, as described in 14 CFR 21.197 and 21.199, are not allowed.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0046, dated February 12, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0046, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; Internet: www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0829.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on November 15, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.